

treatment, 91.8% of the subjects in the HC-1119 survived while 67% of the control group survived.

**[0337]** Example 23: An open label study was conducted on 31 hospitalized male and female patients over the age of 18. All patients enrolled in the study had a score of 6 on the 8 point COVID-19 ordinal scale (National Institute of Allergy and Infectious Diseases)

**[0338]** All subjects were tested and found to be positive for SARS-CoV-2 infection. 31 subjects were assigned to HC-1119 treatment 80 mg qd. Following an average of 28 days of treatment, 72% of the subjects in the HC-1119 group survived. In comparison, subjects not included in the open label study experienced a survival rate of 3%.

**[0339]** Example 24: A double-blinded placebo controlled study was conducted on 56 male and female COVID-19 outpatients over the age of 18. The primary outcome was the rate of hospitalization at day 14. All patients enrolled in the study had a score of 1-2 on the 8 point COVID-19 ordinal scale (National Institute of Allergy and Infectious Diseases) i.e., the subjects had mild to moderate COVID-19 disease.

**[0340]** All subjects were tested and found to be positive for SARS-CoV-2 infection. 28 subjects were assigned to HC-1119 treatment 80 mg qd. The other 28 subjects received standard treatment+HC-1119 placebo. Following 14 days of treatment, 1% of the subjects in the HC-1119 were hospitalized compared to 20% of the subjects in the control group were hospitalized.

**[0341]** It should be noted that the dosage used in administering embodiments of the compositions can be low and still be effective. A low dosage can be within a range from  $\frac{1}{10} \times$  to  $1 \times$  of the following exemplary dosages listed:

topical skin application of finasteride at 10% (w/w)  
oral finasteride at 0.1-10 mg  
dutasteride at 0.1 mg/day to 1.0 mg/day  
degarelix at 240 mg  
oral cannabidiol at 10/mg/Kg/day  
oral flutamide at 750 mg/day  
enzalutamide at 160 mg/day  
HC-1119 at 80 mg/day  
Proxalutamide at 200 mg/day  
oral dutasteride at 0.25 mg/day  
apalutamide at 60 mg 4 times per day  
injection of cyproterone acetate (300 mg).  
subcutaneous injection of degarelix (120 mg)  
bicalutamide at 50 mg per day  
subcutaneous injection of degarelix (120 mg)  
oral darolutamide at 300 mg twice daily  
abiraterone at 500 mg twice daily  
oral nilutamide at 300 mg once daily  
docetaxel at 75 mg/m<sup>2</sup> IV over 1 hour

**[0342]** However, dosages within a range from  $\frac{1}{10} \times$  to  $3 \times$  of the above identified dosages can be used. Thus, dosages can be within a range from:

topical skin application of finasteride at 1-30% (w/w)  
oral finasteride at 0.01-30 mg  
dutasteride at 0.1 mg/day to 3.0 mg/day  
degarelix at 24 mg-720 mg  
oral cannabidiol at 1-30/mg/Kg/day  
oral flutamide at 75-2,250 mg/day  
enzalutamide at 16-480 mg qd  
oral dutasteride at 0.025-0.75 mg/day  
apalutamide at 6-180 mg 4 times per day  
injection of cyproterone acetate (30-900 mg),  
subcutaneous injection of degarelix (12-360 mg)

bicalutamide at 5-150 mg per day  
subcutaneous injection of degarelix (12-360 mg)  
oral darolutamide at 30-900 mg twice daily  
abiraterone at 50-1500 mg twice daily  
oral nilutamide at 30-900 mg once daily  
docetaxel at 7.5-225 mg/m<sup>2</sup> IV over 1 hour

1. A method for treating a patient with or a patient at risk of developing a SARS-CoV-2 infection, wherein the method comprises administering a composition to the patient, wherein the composition comprises an anti-androgen.

2. The method of claim 1, wherein the anti-androgen is enzalutamide or any deuterated form thereof.

3. The method of claim 1, wherein the method further comprises administering an anti-thyroid medication, a thyroid receptor inhibitor, a TGF- $\beta$  inhibitor or a combination thereof.

4. The method of claim 3, wherein the anti-thyroid medication is selected from sodium iodide, potassium iodide, colloidal iodine, tapazole, methimazole, sodium iodide-i-131, Iodotope, iosat, Northyx, Tapazole, Propylthiouracil, PropylThyracil, PTU, SSKI, ThyroSafe, ThyroShield, iOSAT, Sodium iodide 131I, Hicon or a combination thereof.

5. The method of claim 3, wherein the thyroid receptor inhibitor is selected from NH-3, tetraiodothyroacetic acid or a combination thereof.

6. The method of claim 3, wherein the TGF- $\beta$  inhibitor is selected from M7824, bintrafusp alfa, galunisertib, SAR439459, NIS793, PF-06952229, vactosertib, AVID200, ARGX-115, ABBV-151, trabedersen, VTX-002, ACE-1332, SRK-181 or a combination thereof.

7. The method of claim 1, wherein the method further comprises administering a furin inhibitor.

8. The method of claim 7, wherein the furin inhibitor is selected from  $\alpha$ 1-PDX, Acyclic mini-PDX, Cyclic mini-PDX, OMTKY3 (variant A15R,T17K,L18R), 6R, D6R, D9R, H5N1 derived peptide, Ac-RXXT-NH<sub>2</sub>, H2N-C8-RXXT, chloromethylketone, Decanoyl-Arg-Val-Lys-Arg-chloromethylketone, Dec-RVKR-CMK, TACE inhibitor, Naphthofluorescein, phenylacetyl-Arg-Val-Arg-4-amidino-benzylamide or a combination thereof.

9. A method for treating a patient with or a patient at risk of developing a SARS-CoV-2 infection, wherein the method comprises administering to the patient an anti-thyroid medication, a thyroid receptor inhibitor, a TGF- $\beta$  inhibitor or a combination thereof.

10. The method of claim 9, wherein the anti-thyroid medication is selected from sodium iodide, potassium iodide, colloidal iodine, tapazole, methimazole, sodium iodide-i-131, Iodotope, iosat, Northyx, Tapazole, Propylthiouracil, PropylThyracil, PTU, SSKI, ThyroSafe, ThyroShield, iOSAT, Sodium iodide 131I, Hicon or a combination thereof.

11. The method of claim 9, wherein the thyroid receptor inhibitor is selected from NH-3, tetraiodothyroacetic acid or a combination thereof.

12. The method of claim 9, wherein the TGF- $\beta$  inhibitor is selected from M7824, bintrafusp alfa, galunisertib, SAR439459, NIS793, PF-06952229, vactosertib, AVID200, ARGX-115, ABBV-151, trabedersen, VTX-002, ACE-1332, SRK-181 or a combination thereof.

13. The method of claim 9, wherein the method further comprises administering a retinoid X receptor antagonist.